Ishan Madhuranga

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Education

Dublin Business School — Dublin, Ireland
Master of Science in Artificial Intelligence — *Jan 2025*

Southampton Solent University — Southampton, England
Bachelor of Science in Cyber Security Management — *April 2022*

Experience

Game Developer Intern — Sep 2024 – June 2025
Sleepless Inc. — *Dublin, Ireland*

- Developed and optimized game-play mechanics, AI behaviors, and interactive elements.
- Debugging and optimizing game performance for efficiency and stability.
- Staying up to date with the latest Unreal Engine advancements and best practices.

Artificial Intelligence Engineer Intern — Nov 2021 – Nov 2022
British College Of Applied Studies — *Colombo, Sri Lanka*

- Participated in academic research initiatives, contributing to projects involving generative adversarial networks (GANs), autonomous systems, and reinforcement learning.
- Collaborated on building RESTful APIs using FastAPI and Flask to serve AI functionalities to front-end clients.
- Documented all development processes, including model training, evaluation, and deployment strategies, in line with academic and industry standards.

Freelance AI/ML Specialist — Aug 2019 – Feb 2025
Fiverr & Direct Contracts — *Colombo, Sri Lanka*

- Delivered AI and ML solutions to clients via Fiverr and direct contracts.
- Built and deployed models for deep learning, computer vision, and data analytics tasks.
- Deep Learning, Computer Vision, Data Preprocessing and Model Deployment using Amazon ECS/ Azure Kubernetes
- Conducted model optimization and integration for real-time applications and IOT/Client based devices.

Projects

Fast Neural Style Transfer In a 3D Environment in Real Time | *Python, C++* — June 2024 – Sept 2024

- Developed a custom transformer model for real-time neural style transfer system for 3D environments
- Implemented intelligent NPC behavior using ConvAI for conversations with a custom fine-tuned BART LLM model running on backend with specialized table queries.
- Achieved seamless rendering while maintaining visual quality with Custom Depth Filters
- Quantized the ONNX Models for better performance.

FNST Minimal Inference Implementation for Performance Optimization | *C++* — Sept 2024

- Implemented a lightweight Fast Style Neural Transfer inference in pure C++ with a focus on maximizing execution speed and reducing memory overhead.
- Focused on rapid experimentation and low-latency deployment in constrained environments without the need for Python-based ML stacks.

Autonomous Self-Driving Car (Prototype) | *Python, NVIDIA Jetson Nano* — Aug 2021 – Dec 2021

- Designed and implemented an autonomous self- driving vehicle using a custom-trained CNN model deployed on a SBD.
- Real-time inference from a single RGB camera for dynamic navigation decisions.
- Applied Threading for monitoring driver fatigue using HOG-based face detection and facial landmark analysis.
- Implemented Real time Motor RPM Adjustments based on Inference Results.

Technical Skills

Languages: Python, C++, C#, SQL (Postgres), JavaScript/TypeScript, HTML/CSS
Frameworks: React, React Three Fiber, Node.js, Transformer.js Flask, FastAPI, PyTorch, Tensorflow
Developer Tools: Git, Docker, Google Cloud Platform, AWS, VS Code, Visual Studio, Jupyter Notebooks
Libraries: OpenCV, OnnxRuntime, Tkinter, pandas, NumPy, Threading, Matplotlib